

Production and health management of bluefin tuna in Spain



Figure 1. The situation of the culture of bluefin tuna in Mediterranean Sea

Objectives

Evaluation of the situation about the culture of bluefin tuna and their health management

Introduction

Production

- Fishes around 30 kg are captured by cerclage
- Transferred in floating cages and are transported on very reduced speed
- Transferred in cages of fattening where they spend from 3 to 7 months until it reaches around 150 kg.
- Sacrifice with mechanical methods or empty bullet to avoid “yake”

Handicaps

- Management in transferring to fattening cages
- Feeding → Nowadays they are fed once a day to satiety with freezed bait (sardine, mackerel, anchovy and horse mackerel)
- Reproduction → SELFDOTT Program (2008-2011) to close the bluefin tuna cycle
 - Keeping and maintenance of adult reproductive stock
 - Management and feeding of tuna larvae
 - Transference from land installations to sea fattening cages

Conclusions

- The management practices are based in prevention and management of the animals
- In the future the recommendations are a management based on treatment of the bait (until there is no commercial feed), antifouling treatments and the change of the nets

Health management

- Parasites are the most important problems
- Digenea trematodes
 - Branchial and coronary embolisms
 - Genre *Cardicola*: *C.forsteri*, *C.orientalis* and *C. Opisthorchi*
- Copepods
 - Some species are parasites
 - Few reports of highly pathogenic copepod *Caligus chistos*
- *Anisakis*
 - 23% prevalence in cultured tunas vs over almost 100% in captured tuna
- Some parasites are not pathogenic to tunas but can cause ↓ of their value
 - *Cestoda* and *Mixozoa*

Health management practices

- Density of the fattening culture
- Antifouling treatments and periodical change of the nets→ To avoid intermediate hosts of some parasites
- Eating behaviour
- Freezed bait→ To avoid oral and digestive transmission of parasites
- Biometrical control→ Monitoring the growth